APPEAL BRIEF UNDER 37 C.F.R. § 41.37

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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Charles L. Brabenac

Examiner: James K. Trujillo

Serial No.: 09/746,205

Group Art Unit: 2116

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Docket: 884.336US1

For: PORT-BASED PACKET FILTER

Customer No. 21186

APPEAL BRIEF UNDER 37 CFR § 41.37

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Commissioner for Patents
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Sir:

The Appeal Brief is presented in response of the Decision on Pre-Appeal Brief mailed October 25, 2005 and in support of the Notice of Appeal to the Board of Patent Appeals and Interferences, filed on September 14, 2005, from the Final Rejection of claims 2, 5, 9, 12, 13 and 15-38 of the above-identified application, as set forth in the Final Office Action mailed on June 14, 2005.

The Commissioner of Patents and Trademarks is hereby authorized to charge Deposit Account No. 19-0743 in the amount of $500.00 which represents the requisite fee set forth in 37 C.F.R. § 41.2(b)(2). The Appellants respectfully request consideration and reversal of the Examiner's rejections of pending claims.

This Appeal Brief is accompanied by a Petition, as well as the appropriate fee, to obtain a five-month extension of the period for responding to the Decision on Pre-Appeal Brief Request for Review, thereby moving the deadline for response from November 25, 2005 to April 25, 2006.

1. REAL PARTY IN INTEREST

The real party in interest of the above-captioned patent application is the assignee, INTEL CORPORATION.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

The present application was filed on December 22, 2000 with claims 1 to 29. A non-final Office Action was mailed November 28, 2003, rejecting claims 1 to 29. A Final Office Action was mailed April 1, 2004, rejecting pending claims 2, 3, 5, 9, 12-29.

A non-final Office Action was mailed September 28, 2004, rejecting pending claims 2, 3, 5, 9, 12-29. A Final Office Action (hereinafter "the Final Office Action") was mailed June 14, 2005, rejecting pending claims 2, 5, 9, 12, 13, 15-38. On April 10, 2006, the Examiner entered Appellant's Amendment for claims 5, 9, 15, 19, and 25.

At least claim 12 has been twice rejected, remains pending, and is the subject of the present Appeal, along with claims 2, 5, 9, 13, and 15-38. At this time, claims 2, 5, 9, 12, 13, and 15-38 are currently pending in the Application, stand rejected, and their rejection is appealed herein.

4. STATUS OF AMENDMENTS

On April 10, 2006, the Examiner entered Appellant's Amendment for claims 5, 9, 15, 19, and 25.

5. SUMMARY OF CLAIMED SUBJECT MATTER

Claim 2 describes a method including receiving a packet at a port filter (276), wherein the packet comprises a port number (510); determining whether there is a host application associated with the port number (520); when there is not a host application associated with the port number, discarding the packet (530); and when there is a host application assigned to the port number, sending a wake-up message (360) to a power-managed host computer that is operable in either a power-managed state or an operational state (540). (Figure 3, Figure 5, and the originally filed specification at page 8, lines 6-18 and page 10, line 9 to page 11, line 23).

Claim 12 describes a signal-bearing media including instructions. The instructions when read and executed by a processor comprise receiving a packet comprising a port number (510); determining whether there is a host application associated with the number (520); and when there is a host application associated with the port number, sending a wake-up message to a power-managed host computer that is one of a laptop computer and a portable computer operable in either a power-managed state or an operational state (540). (Figure 3, Figure 5, and the originally filed specification at page 8, lines 6-18 and page 10, line 9 to page 11, line 23).

Claim 23 describes an apparatus comprising a port filter (276) to receive a packet comprising a port number (510), determine whether there is a host application associated with the port number (520), and send a wake-up message to a host computer (110) when there is a host application associated with the port number, wherein the host computer is operable in either a power-managed state or an operational state (540). (Figure 3, Figure 5, and the originally filed specification at page 8, lines 6-18 and page 10, line 9 to page 11, line 23).

Claim 33 describes an apparatus. The apparatus comprises a first stage filter (274) to receive a packet; interrogate the packet as to whether the packet includes data that matches selected data of a host computer (110); and reject the packet when the packet does not include data that matches selected data of the host computer. The apparatus also comprises a second stage filter (276) to receive the packet comprising a

port number (510); determine whether there is a host application associated with the port number (520), and reject the packet when there is not a host application associated with the port number (530), wherein the apparatus further is to present the packet to the host computer when there is a host application associated with the port number and when the packet includes data that matches the selected data of the host computer. (Figure 3, Figure 5, and the originally filed specification at page 8, lines 6-18 and page 10, line 9 to page 11, line 23).

Claim 36 describes a method comprising receiving a packet at a first stage filter (274) to interrogate the packet as to whether the packet includes data that matches selected data of a host computer; rejecting the packet when the packet does not include data that matches selected data of the host computer; receiving the packet at a second stage filter (276), wherein the packet comprises a port number (510); determining whether there is a host application associated with the port number at the second stage filter (520); and rejecting the packet when there is not a host application associated with the port number (530). (Figure 3, Figure 5, and the originally filed specification at page 8, lines 6-18 and page 10, line 9 to page 11, line 23).

This summary does not provide an exhaustive or exclusive view of the present subject matter, and Appellant refers to the appended claims and its legal equivalents for a complete statement of the claimed invention.

6. GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 2, 3, 5, 9 and 12-13 and 15-30 were rejected under 35 USC § 103 as being unpatentable over Graham-Cumming, Jr. (U.S. 6,182,146) in view of McKaughan et al. (U.S. 5,802,305). Applicant notes that the prior office action refers to claims 12-30 as rejected under 35 USC § 103, however, claim 14 was previously canceled.

Claims 31-38 were rejected under 35 USC § 103(a) as being unpatentable over Novoa et al. (U.S. 6,493,824) in view of Graham-Cumming, Jr.

7. ARGUMENT

7.1 The Applicable Law

The Examiner has the burden under 35 U.S.C. §103 to establish a *prima facie* case of obviousness. *In re Fine*, 837 F.2d 1071, 1074, 5 USPQ2d 1596, 1598 (Fed. Cir.1988). As part of establishing a *prima facie* case of obviousness, the Examiner must show that some objective teaching in the prior art or some knowledge generally available to one of ordinary skill in the art would lead an individual to combine the relevant teaching of the references. *Id.*

The court in *Fine* stated that:

> Obviousness is tested by "what the combined teaching of the references would have suggested to those of ordinary skill in the art." *In re Keller*, 642 F.2d 413, 425, 208 USPQ 871, 878 (CCPA 1981)). But it "cannot be established by combining the teachings of the prior art to produce the claimed invention, absent some teaching or suggestion supporting the combination." *ACS Hosp. Sys.*, 732 F.2d at 1577, 221 USPQ at 933. And "teachings of references can be combined *only* if there is some suggestion or incentive to do so."

Id. (emphasis in original).

The M.P.E.P. adopts this line of reasoning, stating that

> "In order for the Examiner to establish a *prima facie* case of obviousness, three base criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on Appellant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ 2d 1438 (Fed.Cir. 1991))." *M.P.E.P.* §2142. (emphasis added.)

Motivation to combine or modify the prior art is lacking when the prior art teaches away from the claimed combination. A reference may be said to teach away when the reference suggests a path direction that is divergent from the path the Appellant

took. *In re Gurley*, 27 F.3d 551, 31 USPQ 2d 1130, 1131 (Fed. Cir. 1994); *United States v. Adams*, 383 U.S. 39, 52, 148 USPQ 479, 484 (1966); *In re Sponnoble*, 405 F.2d 578, 587, 160 USPQ 237, 244 (C.C.P.A. 1969); *In re Caldwell*, 319 F.2d 254, 256, 138 USPQ 243, 245 (C.C.P.A. 1963).

If a proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. *In re Gordon*, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984); MPEP §2143.01.

Additionally, while it is true that it is the teachings, not the actual physical embodiments, of references that are considered in making an obvious determination under 35 USC §103 (*In re Keller* at 425), on the other hand, it is equally true that if the teachings of a prior art reference would lead one skilled in the art to make a modification which would render another prior art device inoperable, then such a modification would generally not be obvious. *In re Gordon,* 733 F.2d 900, 902, 2212 USPA 1125, 1127 (Fed Cir. 1984).

The Examiner must avoid hindsight. *In re Bond*, 910 F.2d 831, 834, 15 USPQ2d 1566, 1568 (Fed. Cir. 1990). "Obviousness may not be established using hindsight or in view of the teachings or suggestions of the inventor." *Para-Ordnance Mfg., Inc. v. SGS Importers Int'l, Inc.*, 73 F.3d 1085, 1087, 37 USPQ2d 1237, 1239 (Fed. Cir. 1995), *cert. denied*, 117 S.Ct. 80 (1996) citing *W.L. Gore & Assocs. v. Garlock, Inc.*, 721 F.2d 1540, 1553, 220 USPQ 303, 312-13, cert. denied, 469 U.S. 851 (1984).

7.2 Discussion of the rejection of claims 2, 3, 5, 9, 12-13 and 15-30 over Graham in view of McKaughan.

This rejection is erroneous because the Examiner failed to show motivation of record to modify the Graham reference, and failed to show reasonable expectation of success of the proposed combination of Graham and McKaughan.

The stated purpose of Graham includes determining an appropriate application for an incoming packet, *even when the application for the packet is unknown*:

> "In the present invention, the application-port mapping table will initially not contain an association between the dynamic port and an application identifier, and *thus the application for the packet will be unknown. However, unlike conventional approaches, the packet analysis module then analyzes the packet to determine the appropriate application for handling the packet.*" Graham, col. 3, lines 26-32 (emphasis added).

Further, in Figure 6 of Graham, the flow chart at 609 to 611 indicates that after determining that the application for the packet is unknown, Graham continues to attempt to identify an application for the packet. Graham, col. 10, lines 42-62. Graham's flow chart of Figure 7 likewise shows a continued attempt to identify an application for the packet *after* determining that there is not an application for the packet. See blocks 719, 721, 723, and 725 of Figure 7 in Graham.

Ultimately, Graham is so determined to "handle" each incoming packet by identifying some application to process the packet, that Graham may then pass the packet to a default application when the application identifier associated with the packet is unknown, even *after* the continued failed attempts to determine an appropriate application. Graham, Figure 6, block 623 and Figure 7, block 717.

Clearly, the purpose of Graham includes being persistent in determining an application for each incoming packet, even when the application (for processing an incoming packet) is unknown.

In direct contrast to the purpose of Graham, the Examiner proposes to modify Graham to *preclude* the possibility of passing the packet to a default application in the instance where an appropriate application is not identified. However, the Examiner has simply failed to show motivation of record to modify Graham to preclude the purpose of Graham. Also, because the option of passing the packet to a default application is precluded in this proposed modification, the modification renders Graham unsatisfactory for its intended purpose. Further, ironically, this proposed modification actually puts Graham more in line with the "*conventional approaches*" that Graham was seeking to

distinguish itself from, where there is no persistent determination with regard to identifying the application for the packet.

The requirement of a suggestion or motivation to combine references in a *prima facie* case of obviousness is emphasized in the Federal Circuit opinion, In re Sang Su Lee, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002), which indicates that the motivation must be supported by evidence in the record.

Appellant respectfully submits that the Examiner failed to put into evidence that which was needed to make a *prima facie* case of obviousness. Specifically, there is no evidence of record that indicates motivation to modify Graham to preclude the possibility of passing the packet to a default application in the instance where an appropriate application is not identified, as suggested in the Action. Absent such evidence, there is no demonstrated motivation for the proposed modification of the Graham reference.

Further, because there is no evidence of record that indicates motivation to modify Graham to preclude the possibility of passing the packet to a default application in the instance where an appropriate application is not identified, as suggested in the Action, there cannot be a reasonable expectation of success of the proposed combination of Graham and McKaughan.

The addressable memory 303 of Graham includes the software product 304 (packet analysis module 100). Figure 4, and column 8, lines 25-38 of Graham. McKaughan, on the other hand, refers to powering down the computer except for power to the network interface card, before analyzing packets. See 340 of Figure 3, and see Figure 4.

Modifying the computer 300 of Graham as suggested in the Action would render the packet analysis module 100 of Graham inoperable. By powering down the computer 300 of Graham, the packet analysis module 100 would simply not have power and thus not be able to execute. Even if a network interface 306 of Graham was with power while the computer 300 was powered down, there is no demonstrated indication in the record to modify the network interface 306 of Graham, such that the packet analysis module 100 would be moved to be included in the "powered" network interface 306.

Appellant respectfully submits that the Examiner failed to put into evidence that which was needed to make a *prima facie* case of obviousness. Specifically, there is no evidence of record that indicates motivation to modify the network interface 306 of Graham to include software and hardware as suggested in the Action. Absent such evidence, there is no demonstrated motivation for the proposed modification of the network interface 306 of Graham. Therefore, there is simply no evidence of record to show motivation for Graham to operate in low power to analyze packets.

Further, because there is no evidence of record that indicates motivation to modify the network interface 306 of Graham to include software and hardware as suggested in the Action, there cannot be a reasonable expectation of success of the proposed combination of Graham and McKaughan.

In addition, because the computer 300 of McKaughan refers to *powering down* the computer except for power to the network interface card, before analyzing packets, and because Graham is to be *powered on* to analyze the packets and simply can not operate in low power to analyze packets, the only way to combine Graham and McKaughan is through hindsight. Because obviousness may not be established without demonstrated motivation to modify the reference, and may not be established without showing reasonable expectation of success of the proposed combination, the Examiner has not established a *prima facie* case of obviousness for independent claims 2, 12, and 23. Therefore, the rejection under 35 U.S.C. §103(a) cannot stand and claims 2, 12, and 23 are patentable over these cited references.

Claims 3, 5, 9, 13-22 and 24-30 depend from independent claims 2, 12, or 23 and incorporate all of the limitations therein, respectively. Claims 3, 5, 9, 13-22 and 24-30 are also asserted to be allowable for the reasons presented above, and Appellant respectfully requests notification of same. Appellant considers additional elements of claims 3, 5, 9, 13-22 and 24-30 to further distinguish over the cited references, and Appellant reserves the right to present arguments to this effect at a later date.

7.3 Discussion of the rejection of claims 31-38 over Novoa in view of Graham.

This rejection is erroneous for the following reasons: the Examiner failed to show motivation of record to combine Novoa and Graham to arrive at the present claims, and the Examiner failed to show motivation of record to modify the Novoa reference.

The Examiner failed to show motivation of record to combine Novoa and Graham.

With regard to independent claim 33, the Action states on pages 8-9 that Graham refers to "dynamic ports are frequently used to provide security [and Graham's invention] further provides the advantage of improve accuracy in the detection and accounting of traffic data." The Examiner concludes that it would have been obvious:

> "to one having ordinary skill in the art, having the teachings of Novoa and Graham before them at the time the invention was made, to modify the second filter of Novoa to include the filter as taught by Graham. One of ordinary skill in the art would have been motivated to make the modification in order to improve the accuracy in the detection and accounting of traffic and accurately report and manage such traffic. Further, Graham suggests that such a filter would be useful for providing security in such a network system."

Appellant respectfully disagrees.

First, the statement that "Graham suggests that such a filter would be useful for providing security in such a network system" is not supported. Column 1, lines 60-64 of Graham specifically recites: "Indeed, dynamic ports are frequently used, for example to provide for security or for improved resource sharing. Accordingly, there is a need to be able to handle dynamic mappings for network traffic." **There is nothing of record to suggest how the "dynamic ports" of Graham are used to provide for security. Indeed, there is a possibility that the dynamic port may be used as an endpoint in a secure process, without itself being a security filter. Further, column 1, lines 60-64 of Graham does not equate "filter" with "dynamic port."** Appellant respectfully submits that the Examiner failed to put into evidence that which was needed to make a *prima facie* case of obviousness. Specifically, there is no evidence of record that indicates equivalency "filter" and "dynamic port" as suggested in the Action. Absent

such evidence, the asserted statement of equivalency cannot demonstrate motivation to combine the references as suggested in the Action.

Second, there is no evidence of motivation in Novoa to look to Graham to provide motivation to combine these references. In particular, there is no demonstrated indication in the record that Novoa is attempting to "improve the accuracy in the detection and accounting of traffic and accurately report and manage such traffic," as stated in the Action. Therefore, there is simply no indication in the Action of motivation in Novoa to look to Graham for a suggestion to combine the two references. Again, there must be evidence of record to suggest the combination. In re Sang Su Lee, 277 F.3d 1338; 61 U.S.P.Q.2D 1430 (Fed. Cir. 2002). Appellant respectfully submits that the Examiner failed to put into evidence that which was needed to make a *prima facie* case of obviousness. Specifically, there is no evidence of record that indicates a motivation for Novoa to look to Graham for motivation to "improve the accuracy in the detection and accounting of traffic and accurately report and manage such traffic" in Novoa. Absent such evidence, there is no demonstrated motivation for the proposed combination.

Therefore, the Examiner failed to show motivation of record to combine Novoa and Graham to arrive at the present claims.

The Examiner failed to show motivation of record to modify the Novoa reference.

The stated purpose of Novoa includes the following:

> "...it is desirable for a computer system in a power down state to be able to discriminate between *authorized* wake-up packets and *unauthorized* wake-up packets." Novoa, col. 4, lines 43-45 (emphasis added).

To ensure the packet originated from the authorized source, Novoa recites:

> "Preferably, the security field value has been encrypted by an authorized source's private key. In a standard public key/private key encryption scheme, this means that the message can only be correctly decrypted by using the corresponding public key. If in fact the authorized source is the only one in

possession of the private key, successful decryption using the public key ensures that the packet originated from the authorized source." Novoa, col. 9, lines 35-42.

The Examiner suggests that Novoa be modified such that the "second filter for security purposes [at] step 414, col. 9, lines 43-53" of Novoa includes the "filter" as taught by Graham. Graham's "filter" identifies an application based on packet data using an application port mapping table. However, there is no suggestion in the Action that Graham's "filter" discriminates between authorized wake-up packets and unauthorized wake-up packets. If, for example, the system of the proposed combination of Novoa and Graham received a packet associated with an installed universal application, assuming the packet made it through the "first filter" of Graham, the system would be woken up, and the packet would then be handled. There would simply be no discrimination between authorized wake-up packets and unauthorized wake-up packets as taught by Novoa. Therefore the proposed modification of Novoa simply renders Novoa unsatisfactory for its intended purpose, which is to discriminate between authorized wake-up packets and unauthorized wake-up packets.

In specific response to comments in the Advisory Action, if the proposed modification modifies the "second filter" of Novoa to "include" the filter of Graham, without replacing Novoa's second filter, this appears not to be a "modification" of the second filter, but rather is a proposed addition of yet a *third filter* to Novoa.

The Action states that "one of ordinary skill in the art would have been motivated to make the modification in order to improve the accuracy in the detection and accounting of traffic and accurately report an manage such traffic. Further Graham suggests that such a filter would be useful for providing security in such a network system."

Again, Graham's "filter" is not concerned with security, but rather is concerned with identifying an appropriate application for the incoming packets.

Again, there is no demonstrated indication in the Action that Novoa suggests attempting to "improve the accuracy in the detection and accounting of traffic and accurately report and manage such traffic," as stated in the Action. Likewise, Appellant

is simply unable to find anything in the record that demonstrates supported motivation in Novoa to include yet another "security filter," specifically the packet analysis module 100 of Graham, into Novoa.

Therefore, the Examiner failed to show motivation of record to modify the Novoa reference to include Graham's "filter."

Because obviousness may not be established without demonstrating motivation in the record to combine references or modify a reference, the Examiner has not established a *prima facie* case of obviousness for independent claims 33 and 36. The rejection under 35 U.S.C. §103(a) cannot stand. Thus, because there is no demonstrated motivation to combine the references, claims 33 and 36 are patentable over these cited references.

Claims 31, 32, 34, 35, 37, 38 depend from one of independent claims 2, 33 or 36 and incorporate all of the limitations therein, respectively. Claims 31, 32, 34, 35, 37, 38 are also asserted to be allowable for the reasons presented above, and Appellant respectfully requests notification of same. Appellant considers additional elements of claims 31, 32, 34, 35, 37, 38 to further distinguish over the cited references, and Appellant reserves the right to present arguments to this effect at a later date.

8. SUMMARY

For the reasons argued above, claims 2, 3, 5, 9, and 12-30 were not properly rejected under §103(a) as being obvious over Graham in view of McKaughan.

Also, for the reasons argued above, claims 31-38 were not properly rejected under §103(a) as being obvious over Novoa in view of Graham.

It is respectfully submitted that the art cited does not render the claims obvious and that the claims are patentable over the cited art. Reversal of the rejections and allowance of the pending claims are respectfully requested.

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail, in an envelope addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on this 25th day of April, 2006.

Chris Hammond
Name

Signature

CLAIMS APPENDIX

2. A method, comprising:

receiving a packet at a port filter, wherein the packet comprises a port number;

determining whether there is a host application associated with the port number;

when there is not a host application associated with the port number, discarding the packet; and

when there is a host application assigned to the port number, sending a wake-up message to a power-managed host computer that is operable in either a power-managed state or an operational state.

5. The method of claim 2, further comprising:

receiving information from the host computer; and

using the information to carry out determining whether there is a host application associated with the port number, wherein the information comprises executable instructions.

9. The method of claim 2, further comprising:

detecting a port in use by the host application;

selecting information based on the port in use by the host application; and

sending the information to the port filter, wherein the port filter uses the information to carry out determining whether there is a host application associated with the port number, wherein the information comprises executable instructions.

12. (Rejected) A signal-bearing media comprising instructions, wherein the instructions when read and executed by a processor comprise:

receiving a packet comprising a port number;

determining whether there is a host application associated with the number; and

when there is a host application associated with the port number, sending a wake-up message to a power-managed host computer that is one of a laptop computer and a portable computer operable in either a power-managed state or an operational state.

13. The signal-bearing media of claim 12 further comprising:

when there is not a host application assigned to the port, discarding the packet.

15. The signal-bearing media of claim 12, further comprising:

receiving information from the host computer; and

using the information to carry out determining whether there is a host application associated with the number.

16. The signal-bearing media of claim 15, wherein the information comprises executable instructions.

17. The signal-bearing media of claim 15, wherein the information comprises data, and wherein the data is to describe the host application.

18. The signal-bearing media of claim 15, wherein the information comprises data, and wherein the data is to describe the port number.

19. The signal-bearing media of claim 12, further comprising:

detecting a port in use by the host application;

selecting information based on the port in use by the host application; and

sending the information to a port filter, wherein the port filter uses the information to carry out determining whether there is a host application associated with the number.

20. The signal-bearing media of claim 19, wherein the information comprises executable instructions.

21. The signal-bearing media of claim 19, wherein the information comprises data, wherein the data describes the host application.

22. The signal-bearing media of claim 19, wherein the information comprises data, wherein the data describes the port number.

23. An apparatus, comprising:

a port filter to

receive a packet comprising a port number,

determine whether there is a host application associated with the port number, and

send a wake-up message to a host computer when there is a host application associated with the port number, wherein the host computer is operable in either a power-managed state or an operational state.

24. The apparatus of claim 23, wherein the port filter further is to:

discard the packet when there is not a host application associated with the port number.

25. The apparatus of claim 23, wherein the port filter further is to:

receive program information from the host computer; and

use the program information to execute determining whether there is a host application associated with the port number.

26. The apparatus of claim 25, wherein the program information comprises executable instructions.

27. The apparatus of claim 25, wherein the program information comprises data to describe the host application.

28. The apparatus of claim 25, wherein the program information comprises data to describe the port number.

29. The apparatus of claim 23, wherein the wake-up message is to cause the host computer to change from the power-managed state to the operational state.

30. The method of claim 2 further comprising sending the packet to the power-managed host computer when there is a host application associated with the port number.

31. The method of claim 2 further comprising applying a first stage filter to:

receive the packet;

interrogate the packet as to whether the packet includes data that matches selected data of the host computer;

forward the packet when the packet includes data that matches selected data of the host computer; and

reject the packet when the packet does not include data that matches selected data of the host computer.

32. The method of claim 31 wherein the first stage filter includes a pattern filter.

33. An apparatus, comprising:

a first stage filter to:

receive a packet;

interrogate the packet as to whether the packet includes data that matches selected data of a host computer; and

reject the packet when the packet does not include data that matches selected data of the host computer;

a second stage filter to:

receive the packet comprising a port number;

determine whether there is a host application associated with the port number; and

reject the packet when there is not a host application associated with the port number,

wherein the apparatus further is to present the packet to the host computer when there is a host application associated with the port number and when the packet includes data that matches the selected data of the host computer.

34. The apparatus of claim 33 wherein when there is a host application associated with the port number and when the packet includes data that matches the selected data of the host computer, the apparatus further is to send a wake-up message to the host computer, wherein the host computer is operable in either a power-managed state or an operational state.

35. The apparatus of claim 33 wherein the first stage filter includes a pattern filter and the second stage filter includes a port filter.

36. A method, comprising:

receiving a packet at a first stage filter to interrogate the packet as to whether the packet includes data that matches selected data of a host computer;

rejecting the packet when the packet does not include data that matches selected data of the host computer;

receiving the packet at a second stage filter, wherein the packet comprises a port number;

determining whether there is a host application associated with the port number at the second stage filter; and

rejecting the packet when there is not a host application associated with the port number.

37. The method of claim 36, when there is a host application associated with the port number and when the packet includes the data that matches the selected data of the host computer, the method further comprising selecting from a group including:

sending a wake-up message to the host computer that is operable in either a power-managed state or an operational state, and

presenting the packet to the host computer.

38. The method of claim 36 wherein the first stage filter includes a pattern filter and the second stage filter includes a port filter.

EVIDENCE APPENDIX

None.

RELATED PROCEEDINGS APPENDIX

None.